



[4910-13-P]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2018-0275; Product Identifier 2018-NM-011-AD; Amendment 39-19323; AD 2018-14-03]

RIN 2120-AA64

Airworthiness Directives; Bombardier, Inc., Airplanes

AGENCY: Federal Aviation Administration (FAA), Department of Transportation (DOT).

ACTION: Final rule.

SUMMARY: We are adopting a new airworthiness directive (AD) for certain Bombardier, Inc., Model CL-600-2C10 (Regional Jet Series 700, 701, & 702) airplanes; Model CL-600-2D15 (Regional Jet Series 705) airplanes; Model CL-600-2D24 (Regional Jet Series 900) airplanes; and Model CL-600-2E25 (Regional Jet Series 1000) airplanes. This AD was prompted by reports indicating that corrosion was found on the main landing gear (MLG) retraction actuator brackets and their associated pins. This AD requires an inspection of the retraction actuator brackets, their associated pins and hardware, and the mating lugs on the MLG outer cylinder for any corrosion, and replacement if necessary. We are issuing this AD to address the unsafe condition on these products.

DATES: This AD is effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

The Director of the Federal Register approved the incorporation by reference of a certain publication listed in this AD as of [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES: For service information identified in this final rule, contact Bombardier, Inc., 400 Côte-Vertu Road West, Dorval, Québec H4S 1Y9, Canada; Widebody Customer Response Center North America toll-free telephone 1-866-538-1247 or direct-dial telephone 1-514-855-2999; fax 514-855-7401; email ac.yul@aero.bombardier.com; Internet <http://www.bombardier.com>. You may view this service information at the FAA, Transport Standards Branch, 2200 South 216th St., Des Moines, WA. For information on the availability of this material at the FAA, call 206-231-3195. It is also available on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2018-0275.

Examining the AD Docket

You may examine the AD docket on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2018-0275; or in person at Docket Operations between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this final rule, the regulatory evaluation, any comments received, and other information. The address for Docket Operations (phone: 800-647-5527) is in the ADDRESSES section. Comments will be available in the AD docket shortly after receipt.

FOR FURTHER INFORMATION CONTACT: Aziz Ahmed, Aerospace Engineer, Airframe and Mechanical Systems Section, FAA, New York ACO Branch, 1600 Stewart Avenue, Suite 410, Westbury, NY 11590; telephone 516-228-7329; fax 516-794-5531.

SUPPLEMENTARY INFORMATION:

Discussion

We issued an NPRM to amend 14 CFR part 39 by adding an AD that would apply to certain Bombardier, Inc., Model CL-600-2C10 (Regional Jet Series 700, 701, & 702) airplanes; Model CL-600-2D15 (Regional Jet Series 705) airplanes; Model CL-600-2D24 (Regional Jet Series 900) airplanes; and Model CL-600-2E25 (Regional Jet Series 1000) airplanes. The NPRM published in the Federal Register on April 13, 2018 (83 FR 16015). The NPRM was prompted by reports indicating that corrosion was found on the MLG retraction actuator brackets and their associated pins. The NPRM proposed to require inspection of the retraction actuator brackets, their associated pins and hardware, and the mating lugs on the MLG outer cylinder for any corrosion, and replacement if necessary.

We are issuing this AD to address undetected corrosion on the MLG retraction actuator brackets and their associated pins, which could lead to a MLG collapse.

Transport Canada Civil Aviation (TCCA), which is the aviation authority for Canada, has issued Canadian AD CF-2017-34, dated October 19, 2017 (referred to after this as the Mandatory Continuing Airworthiness Information, or “the MCAI”), to correct an unsafe condition for certain Bombardier, Inc., Model CL-600-2C10 (Regional Jet Series 700, 701, & 702) airplanes; Model CL-600-2D15 (Regional Jet Series 705) airplanes; Model CL-600-2D24 (Regional Jet Series 900) airplanes; and Model CL-600-2E25 (Regional Jet Series 1000) airplanes. The MCAI states:

There have been in-service reports of corrosion on the main landing gear (MLG) retraction actuator bracket and its associated pins. Bombardier’s investigation determined that the corrosion is the consequence of inadequate corrosion protection being applied during production. Undetected

corrosion on the MLG retraction actuator bracket and its associated pins could result in a MLG collapse.

This [Canadian] AD mandates the inspection of the MLG retraction actuator bracket, its associated pins and hardware, and the mating lugs on the MLG outer cylinder for corrosion. This [Canadian] AD also mandates the replacement of corroded MLG parts and the application of corrosion protection in order to mitigate the risk of MLG collapse.

You may examine the MCAI in the AD docket on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2018-0275.

Comments

We gave the public the opportunity to participate in developing this final rule. We received no comments on the NPRM or on the determination of the cost to the public.

Conclusion

We reviewed the relevant data and determined that air safety and the public interest require adopting this final rule as proposed, except for minor editorial changes.

We have determined that these minor changes:

- Are consistent with the intent that was proposed in the NPRM for addressing the unsafe condition; and
- Do not add any additional burden upon the public than was already proposed in the NPRM.

Related Service Information under 1 CFR part 51

Bombardier has issued Service Bulletin 670BA-32-060, Revision B, dated November 10, 2017. The service information describes a detailed visual inspection of the retraction actuator brackets, their associated pins and hardware, and the mating lugs on the MLG outer cylinder for any corrosion, and replacement if necessary. This service

information is reasonably available because the interested parties have access to it through their normal course of business or by the means identified in the ADDRESSES section.

Costs of Compliance

We estimate that this AD affects 541 airplanes of U.S. registry.

We estimate the following costs to comply with this AD:

Estimated costs

Action	Labor cost	Parts cost	Cost per product	Cost on U.S. operators
Inspection	16 work-hours X \$85 per hour = \$1,360	\$0	\$1,360	\$735,760

We estimate the following costs to do any necessary replacements that would be required based on the results of the inspection. We have no way of determining the number of aircraft that might need these replacements:

On-condition costs

Action	Labor cost	Parts cost	Cost per product
Replacement	1 work-hour X \$85 per hour = \$85	Up to \$75,790	Up to \$75,875

Authority for this Rulemaking

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. Subtitle VII: Aviation Programs, describes in more detail the scope of the Agency's authority.

We are issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701: “General requirements.” Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

This AD is issued in accordance with authority delegated by the Executive Director, Aircraft Certification Service, as authorized by FAA Order 8000.51C. In accordance with that order, issuance of ADs is normally a function of the Compliance and Airworthiness Division, but during this transition period, the Executive Director has delegated the authority to issue ADs applicable to transport category airplanes and associated appliances to the Director of the System Oversight Division.

Regulatory Findings

This AD will not have federalism implications under Executive Order 13132. This AD will not have a substantial direct effect on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify that this AD:

- (1) Is not a “significant regulatory action” under Executive Order 12866,
- (2) Is not a “significant rule” under the DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979),
- (3) Will not affect intrastate aviation in Alaska, and

(4) Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

Adoption of the Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA amends 14 CFR part 39 as follows:

PART 39 - AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

2. The FAA amends § 39.13 by adding the following new airworthiness directive (AD):

2018-14-03 Bombardier, Inc.: Amendment 39-19323; Docket No. FAA-2018-0275; Product Identifier 2018-NM-011-AD.

(a) Effective Date

This AD is effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

(b) Affected ADs

None.

(c) Applicability

This AD applies to Bombardier, Inc., Model airplanes, certificated in any category, identified in paragraphs (c)(1), (c)(2), and (c)(3) of this AD.

(1) Model CL-600-2C10 (Regional Jet Series 700, 701, & 702) airplanes, serial numbers 10002 and subsequent.

(2) Model CL-600-2D15 (Regional Jet Series 705) airplanes and Model CL-600-2D24 (Regional Jet Series 900) airplanes, serial numbers 15001 and subsequent.

(3) Model CL-600-2E25 (Regional Jet Series 1000) airplanes, serial numbers 19001 and subsequent.

(d) Subject

Air Transport Association (ATA) of America Code 32, Landing gear.

(e) Reason

This AD was prompted by reports indicating that corrosion was found on the main landing gear (MLG) retraction actuator brackets and their associated pins. We are issuing this AD to address undetected corrosion on the MLG retraction actuator brackets and their associated pins, which could lead to a MLG collapse.

(f) Compliance

Comply with this AD within the compliance times specified, unless already done.

(g) Inspection and Replacement

For any MLG dressed shock strut assembly with part numbers and serial numbers specified in paragraph 1.A., “Effectivity,” of Bombardier Service Bulletin 670BA-32-060, Revision B, dated November 10, 2017, at the applicable compliance times specified in paragraphs (g)(1), (g)(2), or (g)(3) of this AD, do a detailed visual inspection of the retraction actuator brackets, their associated pins and hardware, and the mating lugs on the MLG outer cylinder for any corrosion, and do all applicable replacements, in accordance with the Accomplishment Instructions of Bombardier

Service Bulletin 670BA-32-060, Revision B, dated November 10, 2017. Do all applicable replacements before further flight.

(1) For any MLG dressed shock strut assembly that has accumulated less than 10,000 total flight hours on the MLG dressed shock strut assembly and has been in service for less than 60 months since its first installation on an airplane: Within 6,600 flight hours or 39 months, whichever occurs first, after the effective date of this AD.

(2) For any MLG dressed shock strut assembly that has accumulated less than or equal to 14,000 total flight hours on the MLG dressed shock strut assembly, and has been in service for less than 84 months since its first installation on an airplane, and does not meet the criteria in paragraph (g)(1) of this AD: Within 4,400 flight hours or 26 months, whichever occurs first, after the effective date of this AD, but not to exceed 16,600 total flight hours on the MLG dressed shock strut assembly or 99 months since its first installation on an airplane, whichever occurs first.

(3) For any MLG dressed shock strut assembly that has accumulated more than 14,000 total flight hours on the MLG dressed shock strut assembly or 84 months or more since its first installation on an airplane: Within 2,600 flight hours or 15 months, whichever occurs first, after the effective date of this AD.

(h) Parts Exempted from this AD

For any MLG dressed shock strut assembly with part numbers and serial numbers specified in paragraph 1.A., “Effectivity,” of Bombardier Service Bulletin 670BA-32-060, Revision B, dated November 10, 2017: The actions specified in paragraph (g) of this AD are not required provided that the actions in paragraphs (h)(1), (h)(2), or (h)(3) of this AD have been done.

(1) The actions in paragraphs (h)(1)(i), (h)(1)(ii), (h)(1)(iii), and (h)(1)(iv) of this AD, as applicable, have been done on the MLG dressed shock strut assembly since its entry-into-service date.

(i) Airplane Maintenance Manual (AMM) Task 32-32-05-400-803, Installation of the Outboard MLG Retraction Actuator Bracket Pin, or equivalent task in Component Maintenance Manual (CMM) 32-11-05 (for Model CL-600-2C10 (Regional Jet Series 700, 701, & 702) airplanes), or CMM 32-11-06 (for Model CL-600-2D15 (Regional Jet Series 705) airplanes and Model CL-600-2D24 (Regional Jet Series 900) airplanes), or CMM 32-11-34 (for Model CL-600-2E25 (Regional Jet Series 1000) airplanes); and

(ii) AMM Task 32-32-05-400-804, Installation of the Inboard MLG Retraction-Actuator Bracket Pin, or equivalent task in CMM 32-11-05 (for Model CL-600-2C10 (Regional Jet Series 700, 701, & 702) airplanes), or CMM 32-11-06 (for Model CL-600-2D15 (Regional Jet Series 705) airplanes and Model CL-600-2D24 (Regional Jet Series 900) airplanes), or CMM 32-11-34 (for Model CL-600-2E25 (Regional Jet Series 1000) airplanes); and

(iii) AMM Task 32-32-05-400-805, Installation of the Inboard-MLG Retraction-Actuator Pin, or AMM Task 32-32-05-400-801, Installation of the MLG Retraction-Actuator, or AMM Task 32-11-05-400-801, Installation of the MLG Shock-Strut Assembly; and

(iv) For Model CL-600-2C10 (Regional Jet Series 700, 701, & 702) airplanes, Model CL-600-2D15 (Regional Jet Series 705) airplanes, and Model CL-600-2D24 (Regional Jet Series 900) airplanes equipped with MLG auxiliary actuators: AMM Task

32-32-03-400-801, Installation of the MLG Auxiliary Actuator, or AMM Task

32-11-05-400-801, Installation of the MLG Shock-Strut Assembly.

(2) AMM Task 32-32-05-400-806, Installation of the MLG Retraction-Actuator Bracket has been accomplished on the MLG dressed shock strut assembly since its entry-into-service date.

(3) AMM Task 32-11-00-610-801, Restoration (Overhaul) of the MLG Assembly has been accomplished on the MLG dressed shock strut assembly since its entry-into-service date.

(i) Credit for Previous Actions

This paragraph provides credit for actions required by paragraph (g) of this AD, if those actions were performed before the effective date of this AD using Bombardier Service Bulletin 670BA-32-060, dated May 2, 2017, or Bombardier Service Bulletin 670BA-32-060, Revision A, dated June 22, 2017.

(j) Other FAA AD Provisions

The following provisions also apply to this AD:

(1) Alternative Methods of Compliance (AMOCs): The Manager, New York ACO Branch, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the manager of the certification office, send it to ATTN: Program Manager, Continuing Operational Safety, FAA, New York ACO Branch, 1600 Stewart Avenue, Suite 410, Westbury, NY 11590; telephone 516-228-7300; fax 516-794-5531. Before using any approved AMOC, notify your

appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office.

(2) Contacting the Manufacturer: For any requirement in this AD to obtain corrective actions from a manufacturer, the action must be accomplished using a method approved by the Manager, New York ACO Branch, FAA; or Transport Canada Civil Aviation (TCCA); or Bombardier, Inc.'s TCCA Design Approval Organization (DAO). If approved by the DAO, the approval must include the DAO-authorized signature.

(k) Related Information

(1) Refer to Mandatory Continuing Airworthiness Information (MCAI) Canadian AD CF-2017-34, dated October 19, 2017, for related information. This MCAI may be found in the AD docket on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2018-0275.

(2) For more information about this AD, contact Aziz Ahmed, Aerospace Engineer, Airframe and Mechanical Systems Section, FAA, New York ACO Branch, 1600 Stewart Avenue, Suite 410, Westbury, NY 11590; telephone 516-228-7329; fax 516-794-5531.

(3) Service information identified in this AD that is not incorporated by reference is available at the addresses specified in paragraphs (l)(3) and (l)(4) of this AD.

(l) Material Incorporated by Reference

(1) The Director of the Federal Register approved the incorporation by reference (IBR) of the service information listed in this paragraph under 5 U.S.C. 552(a) and 1 CFR part 51.

(2) You must use this service information as applicable to do the actions required by this AD, unless this AD specifies otherwise.

(i) Bombardier Service Bulletin 670BA-32-060, Revision B, dated November 10, 2017.

(ii) Reserved.

(3) For service information identified in this AD, contact Bombardier, Inc., 400 Côte-Vertu Road West, Dorval, Québec H4S 1Y9, Canada; Widebody Customer Response Center North America toll-free telephone 1-866-538-1247 or direct-dial telephone 1-514-855-2999; fax 514-855-7401; email ac.yul@aero.bombardier.com; Internet <http://www.bombardier.com>.

(4) You may view this service information at the FAA, Transport Standards Branch, 2200 South 216th St., Des Moines, WA. For information on the availability of this material at the FAA, call 206-231-3195.

(5) You may view this service information that is incorporated by reference at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202-741-6030, or go to: <http://www.archives.gov/federal-register/cfr/ibr-locations.html>.

Issued in Des Moines, Washington, on June 26, 2018.

Jeffrey E. Duven,
Director,
System Oversight Division,
Aircraft Certification Service.

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